#### MCIR

#### MARINE CASUALTY INVESTIGATION REPORT

CASE NUMBER/ MC010	02211 INV INIT/ .	PORT/ PORMS LAST UPDATE/ 02NOV01
CASUALTY TYPE: VESSE	L/ X PERSONNEL/ X	FACILITY/ POLLUTION/ X MARPOL/
INCIDENT DATE/ 15FEB	01 TIME/ 1040	KNOWN/ X ESTIMATED/ REF CASE/
NOTIFY DATE/ 15FEB	01	TIME/1546 REPORTER TYPE/USCG
SUBJECT/ F/V B	LUE MAX/CAPSIZE	LOCAL FILE REFERENCE/
LOCATION/ OFFSH	ORE COLUMBIA RIVER BAR	LOCAL CODE/
INCIDENT STATUS: VER	IFIED/ X NOT VERIFIED/	/ VERIFIED, NOT REPORTABLE/
NOTIFY/	ACTION:	CTF/ RETURN/ (TO IAPR)

## --- VALIDATION AND ENDORSEMENT ---

	END/FWD	END/CLS	RETURN	USER-ID	NAME	
INVESTIGATOR:	Х					2
UNIT COMMAND:	X					2
DIST REQ? Y :	X					2
HQ REQ? Y:		Х	•			0

#### --- GENERAL INFORMATION ---

CITY/	ST/	WATERBODY/ COLUMBIA RIVER
RIVER MILE/ .	LATITUDE/ N46-14.2	LONGITUDE/ W124-7.5
CAS SUMMARY: TYPE/ SINKING	CLASS/ MAJOR	
POSSIBLE DRUG INVO	LVEMENT?/ Y	PUBLIC VESSEL/ BOATING/
DEATHS/	MISSING/	INJURED/ TOTAL DAMAGE/25
ENV IMPACT: MODE/ WATER	SEVERITY CATAGORY/MINOR	MATERIAL CATAGORY/ OIL/OIL
osc/ uscg	EPA REGION/ 10	CLEANUP REQ?/ N
RESPONSE BY NSF?/N	NSF TIME TO RESPOND/	HOURS
NOTIFICATION FROM	NRC?/ N	NRC CASE/
NOTIFICATION FROM	APHIS?/ N	APHIS PORT/

## --- INCIDENT BRIEF ---

Commercial Fishing Vessel sank inbound to Columbia River. Following seas filled deck with water which entered engine compartment & vsl capsized. Cargo of fish shifted after initial listing. Crew rescued by CG. Vessel could not be located by sonar or diving. See MCNS for details, Pollution case associated, FPN S01027. No further action. Case closed.

#### --- ACTIONS REPORTED ---

CASE SUPPLEMENTS	EVENT SUPPLEMENTS
WITNESS LIST(IAWL)/X	COLLISION OR GROUNDING. (MCCG) /
COMDT RECOMMENDATION. (MCCR)/X	EQUIP FAILURE(MCDR)/
CASUALTY DETAILS(MCDD)/X	FLOOD, CAPSIZE, SINKING (MCFC) /1
NARRATIVE SUPPLEMENT. (MCNS)/X	FIRE, EXPLOSION(MCFE) /
PERS ACTION RECOMMEND (MCPA) /	HUMAN FACTORS SUPP(MCHF)/1
POLLUTANT DETAILS(MCPD)/1	HAZ MAT INVOLVEMENT (MCHM) /

CASE NUMBER/ MC0100221

UNIT/ PORMS

## --- RECOMMENDATION ---

1. BRIEF/ F/V BLUE MAX FLOODING ACTION PORT/ GMMI It is recommended that Fishing Vessel Safety Examiners stress the need for owners to thoroughly examine potential and known structural defects in the vessel while in drydock. Had the cause of the flooding in the void been identified, the casualty may have been avoided or mitigated.

## --- UNIT ENDORSEMENT ---

ENDORSEMENT COMPLETE/ X STATUS/ CONCUR LAST UPDATE/ 29JUN01 Concur with Recommendation. It is critical that owners/operators take advantage of the full access available to the vessel while in drydock in order to effectively identify all problems and have them corrected prior to returning the vessel to operation.

## --- DISTRICT ENDORSEMENT ---

ENDORSEMENT COMPLETE/ X STATUS/ PENDS LAST UPDATE/ 29JUN01 Concur. Proactive vessel maintenance is critical to vessel safety.

## --- HEADQUARTERS ENDORSEMENT ---

ENDORSEMENT COMPLETE/ STATUS/ LAST UPDATE/
We concur with this recommendation. We will post this casualty case as a
lessons learned item on the Commercial Fishing Industry Vessel Safety
(CFVS) web site. In addition, we will forward this case to Yorktown to be
used in the training for Fishing Vessel Safety Examiners as a lessons
learned item.

W.D. Rabe By direction

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CASE NUMBER/ MC0100221

UNIT/ PORMS

#### --- RECOMMENDATION ---

2. BRIEF/ F/V BLUE MAX FLOODING

It is recommended that the fishing industry be reminded of the importance of installing bilge pumps with alarms in all compartments with limited access rather than just those required by regulations. Fishing Vessel Safety Examiners should strongly urge voluntary installation.

## --- UNIT ENDORSEMENT ---

ENDORSEMENT COMPLETE/ X STATUS/ CONCUR LAST UPDATE/ 29JUN01 Concur with recommendation. With sinking and capsizing being some of the most prevalent causes of fishing vessel losses, early warning systems are critical to a crew's ability to mitigate any loss of vessel integrity and improve survival rates.

## --- DISTRICT ENDORSEMENT ---

ENDORSEMENT COMPLETE/ X STATUS/ PENDS LAST UPDATE/ 29JUN01 Concur. The lack of a through-hull fitting in the compartment, which is the basis for required bilge pump/alarms does not preclude a breach of the hull in other compartments, and an early warning system in those compartments which are looked at infrequently would be practical.

## --- HEADQUARTERS ENDORSEMENT ---

ENDORSEMENT COMPLETE/ STATUS/ LAST UPDATE/ We concur with this recommendation. We will post this casualty case as a lessons learned item on the Commercial Fishing Industry Vessel Safety (CFVS) web site. In addition, we will forward this case to Yorktown to be used in the training for Fishing Vessel Safety Examiners as a lessons learned item.



CASE NUMBER/ MC0100221

UNIT/ PORMS

#### --- RECOMMENDATION ---

3. BRIEF/ F/V BLUE MAX FLOODING ACTION PORT/ GMMI It is recommended that the Fishing Vessel Safety Examiners ensure their dockside exams involve a thorough examination of the bilge pumps and alarms where required, to ensure proper installation and operation.

--- UNIT ENDORSEMENT ---

ENDORSEMENT COMPLETE/ X STATUS/ CONCUR LAST UPDATE/ 29JUN01 Concur with recommendation. Verification of bilge pumps and alarms at the dock are critical to ensuring safety while underway.

--- DISTRICT ENDORSEMENT ---

ENDORSEMENT COMPLETE/ X Concur.

STATUS/ PENDS

LAST UPDATE/ 29JUN01

--- HEADQUARTERS ENDORSEMENT ---

ENDORSEMENT COMPLETE/ STATUS/ LAST UPDATE/
We concur with this recommendation. We will post this casualty case as a
lessons learned item on the Commercial Fishing Industry Vessel Safety
(CFVS) web site. In addition, we will forward this case to Yorktown to be
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learned item.

CASE NUMBER/ MC0100221

UNIT/ PORMS

#### --- RECOMMENDATION ---

4. BRIEF/ F/V BLUE MAX FLOODING ACTION PORT/ GMMI It is recommended that Fishing Vessel Safety Examiners pay particular attention to vessels with false decks and insure vessel owners/operators are reminded of the risks of flooding caused by trapped water on deck. Particular attention should be focused on watertightness where bilge pumps or alarms are not installed.

--- UNIT ENDORSEMENT ---

ENDORSEMENT COMPLETE/ X STATUS/ CONCUR LAST UPDATE/ 29JUN01 Concur with recommendation. Vessel crews should be aware of the particular hazards posed by false decks and have a full understanding of vessel stability ramifications in order to ensure vessel safety.

--- DISTRICT ENDORSEMENT ---

ENDORSEMENT COMPLETE/ X STATUS/ PENDS LAST UPDATE/ 29JUN01 Concur. Having this information would increase an operator's ability to take appropriate preventive measures.

--- HEADQUARTERS ENDORSEMENT ---

ENDORSEMENT COMPLETE/ STATUS/ LAST UPDATE/ We concur with this recommendation. We will post this casualty case as a lessons learned item on the Commercial Fishing Industry Vessel Safety (CFVS) web site. In addition, we will forward this case to Yorktown to be used in the training for Fishing Vessel Safety Examiners as a lessons learned item.

CASE NUMBER/ MC0100221\_

UNIT/ PORMS

#### --- RECOMMENDATION ---

5. BRIEF/ F/V BLUE MAX FLOODING ACTION PORT/ GMMI It is recommended that the fishing industry be reminded of the need to regularly examine bin boards for proper strength, integrity, and placement to ensure proper cargo stowage and maintenance of stability.

## --- UNIT ENDORSEMENT ---

ENDORSEMENT COMPLETE/ X STATUS/ CONCUR LAST UPDATE/ 29JUN01 Concur with recommendation. Since there are indications that the bin boards may have failed, allowing uncontrolled shifting of fish in the hold, and further deterioration of the vessel's stability, greater crew attention to this issue is warranted.

#### --- DISTRICT ENDORSEMENT ---

ENDORSEMENT COMPLETE/ X STATUS/ PENDS LAST UPDATE/ 29JUN01 Concur. This can probably be achieved through inclusion in any other stability based training which have historically revolved around water and tank effects.

## --- HEADQUARTERS ENDORSEMENT ---

ENDORSEMENT COMPLETE/ STATUS/ LAST UPDATE/
We concur with this recommendation. We will post this casualty case as a
lessons learned item on the Commercial Fishing Industry Vessel Safety
(CFVS) web site. In addition, we will forward this case to Yorktown to be
used in the training for Fishing Vessel Safety Examiners as a lessons
learned item.

CASE NUMBER/ MC0100221.

UNIT/ PORMS

## --- RECOMMENDATION ---

6. BRIEF/ F/V BLUE MAX FLOODING ACTION PORT/ GMMI It is recommended that this case be included in training for F/V Safety Examiners.

--- UNIT ENDORSEMENT ---

ENDORSEMENT COMPLETE/ X STATUS/ CONCUR LAST UPDATE/ 29JUN01 Concur with recommendation. This case shows preventative measures that could have been taken prior to the vessel getting underway and were critical to the survivability of the vessel.

--- DISTRICT ENDORSEMENT ---

ENDORSEMENT COMPLETE/ X STATUS/ PENDS LAST UPDATE/ 29JUN01 Concur. Having real-life examples of how things go wrong strengthen recommendations for change in procedures and level of reception.

--- HEADQUARTERS ENDORSEMENT ---

ENDORSEMENT COMPLETE/ STATUS/ LAST UPDATE/
We concur with this recommendation. We will post this casualty case as a
lessons learned item on the Commercial Fishing Industry Vessel Safety
(CFVS) web site. In addition, we will forward this case to Yorktown to be
used in the training for Fishing Vessel Safety Examiners as a lessons
learned item.

CASE/ MC01002211 PORT/ PORMS SUBJECT/ F/V BLUE MAX/CAPSIZE

DATE/ 15FEB01

--- COMMENTS ---

COMMERCIAL FISHING VESSEL BLUE MAX, O.N. D529682, CAPSIZING 2.5 NM NW OF COLUMBIA RIVER ENTRANCE, NO LOSS OF LIFE

## Summary

On February 01, 2001, the F/V BLUE MAX, an uninspected commercial fishing vessel, flooded and subsequently capsized approximately 2.5 NM NW of the Columbia River Entrance. Three persons were aboard the vessel when it capsized. The Coast Guard picked up all three persons.

## Findings of Fact:

## 1. Vessel data:

Name: BLUE MAX Official Number: D529682

Service: Uninspected Commercial Fishing Vessel

Material: Steel
Registered Length: 69.9 feet
LOA: 74 feet
Breadth: 20.1 feet
Depth: 11.5 feet

Gross tons: 102 Propulsion: Diesel

Place Built: Freeport Texas

Year Built: 1970

Home Port: Portland, Oregon

Owner/Operator: Blue Water Fisheries Inc

P.O. Box 64

Sublimity, OR 973852.

- 2. The F/V BLUE MAX is a steel hull, low freeboard vessel used for trawling. The pilothouse and galley area took up the forward half of the main deck. There were ten (10) freeing ports on each side in the aft length of the vessel. F/V BLUE MAX was over 20 years old and had been involved in seven (7) reported minor marine casualties and one (1) collision over the course of its service.
- 3. The F/V BLUE MAX had a false deck of wooden planking built over the vessel's steel deck.
- 4. The F/V BLUE MAX had just completed a dry-dock period on February 6, 2001. The list of work and repairs included: (1) Scrub underwater hull/prime bare metal and copper paint, (2) replace zincs as necessary, (3) install doublers over wasted metal in lazzarette, (4) repair wire cuts in chine and stern ramp, (5) weld up worn pad eyes on gantry, (6) repair fuel oil settling tank, (7) install owner furnished transducer, (8) fabricate alternator mount, and (9) remove propeller for repairs, then reinstall.
- 5. When the vessel was in dry-dock, approximately 5000 gals of water was

CASE/ MC01002211 PORT/ PURMS SUBJECT/ F/V BLUE MAX/CAPSIZE

DATE/ 15FEB01

## --- COMMENTS ---

pumped out of the void space just forward of the lazzerette. The owner did not ascertain why or how the water got into the void. No hull repairs were done in the area of the void.

#### 6. Weather and Sea Conditions:

Weather: Time of Day: Overcast 10:40 AM

Visibility:

Good

Distance:

10 Nautical Miles

Wind Speed:

20 Knots

Wind Direction:

East

Seas:

2feet wind chop

Swell:

4 feet

Tide:

Ebbing

## 7. F/V BLUE MAX Personnel:

Position: Crew Experience:

In Industry

Aboard Blue Max

Master

II years

11 months Coast Guard license: none

<u>Crewman</u>

15 years 2+ months

none

Crewman

27 years 4 days

MMD expired

## 8. Cargo

The vessel's fish hold was at 50% capacity with approximately 40,000-45,000 lbs. of catch.

## 9. Events

On February 15, 2001, at about 10:00 AM local time, F/V BLUE MAX was returning to port after fishing for three days. The trip had originally been scheduled for five days but was shortened at the request of the cannery where the catch was being delivered to. As the vessel was approaching buoy 7 at the mouth of the Columbia River, the master noted the vessel was responding "kind of sluggish". The vessel was listing to port slightly when the bilge alarm sounded.

One of the crewmembers, Mr. Went to the lazzerette and reported to the master that there was "not much water" in there." Approximately 15 minutes later, the lazzerette hatch was under water and the water was not draining off the main deck. The vessel rolled slowly to port (about 2 minutes) without returning to an even keel.

One crewman noted that there was approximately 2 feet of water on the deck at the port quarter as the vessel began to roll to port. The master then issued a partial May-Day call at the same time as the vessel was rolling onto its portside.

CASE/ MC01002211 PORT/ PORMS SUBJECT/ F/V BLUE MAX/CARSIZE DATE/ 15FEB01

#### --- COMMENTS ---

One crewmember, J , who was out on deck, stated he felt the cargo shift as the vessel listed.

CG Group Astoria received a Mayday call on ch 16 VHF-FM from the F/V BLUE MAX, stating that they were going over (capsizing) in Posit 46-14.5N 124-07, 2 NM NW of the Columbia River Entrance. A CG HH-60 diverted from a training mission nearby, arrived on scene and deployed a rescue swimmer. A second HH-60 responded as well. CG Station Cape Disappointment's 47ft MLB also responded and recovered the 3 persons in the life raft from F/V BLUE MAX. A second CG MLB recovered the EPIRB & life raft. Local EMS were waiting at the CG STA and transported the 3 crewmembers to Ocean Park Hospital in Illwaco, WA.

#### Safety Equipment: 10.

When the F/V BLUE MAX capsized, the EPIRB and life raft both released as designed.

was only able to partially don his survival suit, up to his waist. He quit putting it on as the vessel reached about a 90-degree angle on its list. He then crawled outwards using the vessel's rigging. As the liferaft popped up to the surface Mr. Dezwart swam to the liferaft and pulled the painter that deployed the raft.

, grabbed a survival suit, but did not have time to don He was temporarily trapped inside the pilot house, but was able to escape out the starboard door. When he surfaced, he was near the liferaft and was helped aboard.

the other crewmember, grabbed a survival suit from on top the refrigerator in the cabin and attempted to don it. He slid in his feet but did not have time to put it above his hips. When the vessel rolled over the suit got snagged somehow and started pulling under water. able to slide his feet free from the suit and he surfaced. He was helped aboard the liferaft by the other two crewmembers. He did not think to put on a life jacket and did not have time to do so.

The vessel's bilge pumps were energized and operating but were unable to discharge enough water to correct the list.

## 11. Chemical Testing:

Following this incident, all crewmembers were chemically tested in accordance with 46 CFR 4.06. All three crewmembers tested negative for the presence of , tested positive for the use of alcohol. One crewmember, marijuana. Information from the Medical Review Officer (MRO) indicated the test showed levels consistent with recent and continued use. All crewmembers were notified by the MSD Supervisor prior to being released that they would be required to be drug tested. The member stated he was at a party after being

CASE/ MC01002211 PORT/ PORMS SUBJECT/ F/V BLUE MAX/CAPSIZE DATE/ 15FEB01

#### --- COMMENTS ---

rescued, so it is unknown if in fact he was under the influence of any drugs at the time of the incident.

## Analysis:

## Possible sources of flooding and loss of stability

The F/V BLUE MAX had a false deck made of plank construction, which was laid over the steel deck. The freeing ports where designed to drain away the flush deck, so it is probable that the flow of water was restricted due to the raised false deck.

From statements given by the crew and master, the vessel was operating sluggishly and there was a problem besides the water on deck. The master felt that somehow the void compartment; just forward of the lazerette must have taken on water. He had removed 5000 gallons at the repair facility but did not follow up and find out why the water was there. The void did not have a bilge alarm in the space so there was no way to know the extent of the flooding. Since the hatch for that compartment was covered by a removable section of the false deck, it was not visible under normal circumstances. The void hatch was apparently not checked once the vessel left the shipyard. The master had also stated the crew had been attempting to correct the problems with the fish hold hatches that had been continually leaking.

If the scuppers were plugged or the space between decks was not allowing water to drain properly, there would have been several inches of water on deck. water then could have drained into the void and the fish hold if the hatches were leaking. Since the fish hold hatches were known to be leaking, it is very probable that the void hatch was leaking as well.

Once the vessel was listing and apparently taking on water, the scuppers were at or below water level. As the vessel continued to take water over the rails, the vessel listed even more. This eventually allowed water to enter the engine compartment through the main deck door (non water tight) and completely flooded the vessel.

The cargo was made up of Dover Sole, a very slimy and slippery fish. possible shifting of the fish cargo suggests the possibility of bin boards breaking, or the movement of the vessel caused the cargo to shift enough to cause a significant impact on the vessel stability. The combined effects of shifted cargo and free-surface effect of excess water in the void would have a significant effect on the vessels ability to right itself and likely contributed to the vessel's capsizing.

Each of the crew stated they only had 4 hours sleep in the 24 hours preceding the incident. They were obviously fatigued from 3 days of fishing. This could have been a reason why all crewmembers did not notice whether was the freeing ports were clear or not.

GC MSO Portland directed attempts by a local contractor to locate the vessel

CASE/ MC01002211 PORT/ PURMS SUBJECT/ F/V BLUE MAX/CAPSIZE

DATE/ 15FEB01

## --- COMMENTS ---

over several days. All attempts to locate the vessel failed so no post casualty assessment of the vessel's condition could be made.

## Conclusions:

- 1. Based on the findings of fact and analysis in this case, the flooding of the F/V BLUE MAX likely occurred by way of the void and fish hold hatches. Excess water trapped on deck, entering the aft void and fish hold had an adverse effect on the vessel's stability.
- 2. The shifting of the cargo appeared to be more detrimental than the initial flooding. When combined with the flooding, the vessel was not able to recover from a heavy list and subsequently capsized.
- 3. Adverse weather and following seas contributed to the casualty by affecting the vessel's stability. Once the vessel began to flood and settle low into the water, the sea swells aggravated the vessel's heel as the seas filled the deck and caused further flooding into the vessel's engine compartment.
- 4. The proximate cause of this incident was a lack of situational awareness and negligence on the part of the crew, primarily the master. Since the master knew there had been a significant amount of water in the void previously, there should have been a more diligent effort to find the cause. It would have been prudent to check the hatch at some point during the transit once the vessel took water on deck, to see if the void was taking on water. Since none of the crew could recall if the freeing ports were effective or even draining water, it is obvious they did not think it important to check. Additionally, the master was very unsure about the number of freeing ports on the vessel. The shifting of the fish cargo also suggests that adequate care was not taken to insure proper cargo stowage.

#### Recommendations:

These recommendations will be forwarded to the Fishing Vessel Safety Examiner for distribution within the Fishing Vessel Safety Program. This case should be used to educate fisherman about the importance of knowing the true condition of their vessel.

- 1) It is recommended that the fishing industry be made aware of the need to throughly examine potential structural defects in the vessel in drydock. Had the cause of the flooding in the void been identified, the casualty may have been avoided or mitigated.
- 2) It is recommended that the fishing industry be made aware of the importance of installing bilge pumps with alarms in all compartments with limited access rather than just those required by regulations. (They're currently required for all spaces with through-hull fittings and non-watertight hatches).
- 3) It is recommended that the Fishing Vessel Safety Examiners ensure their dockside examinations involve a through examination of the bilge pumps and

CASE/ MC01002211 PORT/ PURMS SUBJECT/ F/V BLUE MAX/CAPSIZE

DATE/ 15FEB01

## --- COMMENTS ---

alarms, where required, to ensure proper installation and operation.

- 4) It is recommended that the fishing industry be made aware of the risks of flooding caused by built up or false decks which trap water on deck, and watertightness where bilge pumps or alarms are not installed.
- 5) It is recommended that the fishing industry be made aware of the need to examine bin boards for proper strength, integrity, and placement to ensure proper cargo stowage and maintenance of stability.

This case will be shared with MSO personnel to show the need to escort individuals to be drug tested to a facility until testing is actually conducted. This will ensure accurate testing procedures are followed and provide a more accurate picture of the use of dangerous drugs where marine casualties occur. Case Closed pending further development if vessel is found.

CASE NUMBER/ MC01002211

ARE ALL SUPPLEMENTS COMPLETED?/ Y

--- SUBJECT REFERENCE MAP ---REF VIN NAME

CONTROL SERV OPERATION STATUS

1. D529682 BLUE MAX COMMENT/

FISH TRAH UNDERWAY

--- CASUALTY PROLOGUE ---

Enroute to Columbia Bar.

--- CASUALTY EVENT SEQUENCE ---

EV SUBJ'	S CAPS	TYPE SIZE PRO	EVENT CLASS OGRESSIVE	STATE INTERNAL FLOODING	CAUSAL EVENTS
CAT SUBJ				G FACTORS	<del></del>
EF 1 SUPS/	CLASS/ STATE/	HULL NEC	SUBCLASS/ PARTY/	WEATHER DECK CLOSURES CAUSAL EVENT(S)/	
WX 1 SUPS/	CLASS/ STATE/	WEATHER COND HEAVY	SUBCLASS/ PARTY/	WAVES CAUSAL EVENT(S)/	
HF 1 SUPS/ X	CLASS/ STATE/	SIT ASSESSMENT INADEQUATE	SUBCLASS/ PARTY/	HAZARD WARNINGS MST CAUSAL EVENT(S)/	
EV SUBJ'	 S	TYPE	EVENT CLASS	STATE	CAUSAL EVENTS
2 1	ABAN	IDONMENT FOI	RCED	STATE TOTAL	
03m 0415 T		C	AUSAL/ENABLING	G FACTORS	
SUPS/	CLASS/ STATE/	INSUFFIC	PARTY/	WEATHER DECK CLOSURES CAUSAL EVENT(S)/	
WX 1 SUPS/	CLASS/ STATE/	SEA STATE MODERATE	SUBCLASS/ PARTY/	PHYSICAL INFLUENCE CAUSAL EVENT(S)/	
HF 1 SUPS/	CLASS/ STATE/	SIT AWARENESS DISREGARDED	SUBCLASS/ PARTY/	OPS WITH KNOWN DEF MST CAUSAL EVENT(S)/	

CASE NUMBER..../ MC01002211
1. VESSEL NAME/ BLUE MAX

DELLTE/ VIN/ D529682

STATE

SIG EVENT TYPE X 1 CAPSIZE

CLASS PROGRESSIVE

INTERNAL FLOODING

WAS VESSEL IN AN INTACT OR DAMAGED CONDITION?/ INTACT CAUSE OF FLOODING...../ LEAK HATCH SPECIAL CIRCUMSTANCES../ FALSE DECK SLIPPERY CARGO

WAS THE VESSEL REQUIRED TO MEET INTACT STABILITY CRITERIA?...../ N
DID THE VESSEL MEET ITS INTACT STABILITY CRITERIA?...../
WAS THE VESSEL REQUIRED TO MEET DAMAGED STABILITY CRITERIA?..../ N
DID THE VESSEL MEET ITS DAMAGED STABILITY CRITERIA?..../
WERE THERE ANY SPECIAL STABILITY INSTRUCTIONS/INFO AVAILABLE?.../ N
WERE THE SPECIAL STABILITY INSTRUCTION/INFO FOLLOWED?...../
DID THE OPERATING PERSONNEL KNOW HOW TO USE THE STABILITY INFO?./

NUMBER OF COMPARTMENTS FLOODED? 4

USE OF THE COMPARTMENTS THAT FLOODED:

LAZERETTE FISH HOLD VOID ENGINE

TIME TO SINK: HOURS / 0 MINUTES / 3

MANNER OF SINKING:

VESSEL LISTED TOW, OVERCOME BY SEAS

DRAFTS: FWD AFT

PRE-CASUALTY..../ 11 0 F (UNITS) (UNITS)
POST-CASUALTY..../ (UNITS)

## --- DESCRIPTION ---

Vessel was listing due to possible flooding of void compt, unknown cause. Scuppers were awash and following seas continued to run over main deck. Load shifted due to list. Vessel capsized and sunk.

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# MARINE CASUALTY HUMAN FACTORS SUPPLEMENT

02JUL01

CASE/ MC01002211

PARTY/ MST

1. VESSEL NAME/ BLUE MAX

VIN/ D529682

--- PERSONNEL PROFILE ---

AGE...../ 45 HEIGHT/ SEX/ M WEIGHT/

EDUCATION/ HS4 ATTENDED MARITIME ACADEMY?../ N

TYPE OF LICENSE OR DOCUMENT HELD/ NONE

TIME IN GRADE......./ 11 YRS 0 MONTHS
TIME ON BOARD PRESENT VESSEL.../ 0 YRS 11 MONTHS
TIME IN INDUSTRY...../ 11 YRS 0 MONTHS

TIME ON WATCH/ 5.0 HRS LENGTH OF WATCH/ 6 HRS NO. OF WATCHES PER DAY/ 2

ADDITIONAL OFF-WATCH DUTIES ASSIGNED?/ Y

TIME SPENT PERFORMING OFF-WATCH DUTIES..../ HRS

AMOUNT OF SLEEP IN PREVIOUS 24 HOUR PERIOD/ 4.0 HRS

--- ADDITIONAL PERSONNEL PROFILE INFORMATION ---

--- EVENT FACTORS ---

 $\mathtt{TYPE}$ EVENT/ 1 CAPSIZE PROGRESSIVE

CLASS

STATE INTERNAL FLOODING

CLASS

STATE

CLASS

SUBCLASS SUBCLASS

STATE

HUMAN FACTOR./ SIT ASSESSMENT HAZARD WARNINGS INADEQUATE
PERS ELEMENT/ MENTAL INFLUENC INATTENTION DISREGARDED
PERS ELEMENT/ PHYS INFLUENCE SHORT-TERM FATIGUE INADEQUATE

DISREGARDED

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CASE NUMBER..../ MC01002211
                                            DELLIE/
  1. VESSEL NAME/ BLUE MAX
                                               VIN/ D529682
     VENT TYPE 2 ABANDONMENT FORCED
   EVENT TYPE
                            CLASS
                                                 STATE
                                         TOTAL
                    --- PERSONNEL CASUALTY SUMMARY ---
                                            CREW/EMP PAS/VIS INDUST OTHER
                                     DEATHS: 0 0
                                                3
                                     MIN INJ:
                                                        0
                                                                0
                                                                       0
                                     SER INJ: 0
MISSING: 0
                                                        0
                                                                0
                                                                       0
                                                        0
                                                                0
                                                                       0
   --- PERSONNEL CASUALTIES ATTRIBUTABLE TO DIRECT EVENT CONSEQUENCES ---
                                            CREW/EMP PAS/VIS INDUST OTHER
                                     DEATHS: 0
                                     MIN INJ:
                                                 0
                                     SER INJ:
                                                 0
                                     MISSING:
                                                 0
   --- PERSONNEL CASUALTIES ATTRIBUTABLE TO ABANDONMENT CONSEQUENCES ---
        ABANDONMENT MODE
                                           CREW/EMP PAS/VIS INDUST OTHER
TO LIFEBOAT/LIFERAFT.....
                      TOTAL PERSONNEL AT RISK:
                                     DEATHS:
                                                 0
                                     MIN INJ:
                                     SER INJ:
                                     MISSING:
TO WATER WITH PFD/IMMERSION SUIT.....
                      TOTAL PERSONNEL AT RISK:
                                     DEATHS:
                                     MIN INJ:
                                     SER INJ:
                                     MISSING:
TO WATER WITH NO PERSONAL PROTECTION.....
                      TOTAL PERSONNEL AT RISK:
REASON: INACCESSIBLE...../ DEATHS:
                                    MIN INJ:
       INSUFFICIENT TIME../
       INADEQUATE WARNING /
                                    SER INJ:
                                    MISSING:
       INSUFFICIENT AMOUNT/
           --- MULTI-PERSON LIFESAVING EQUIPMENT PERFORMANCE ---
               REQ'D AVAIL FUNCT USED
                                                    COMMENT
LIFEBOATS
RESCUE BOATS
INFLATABLE RAFTS 1 1 1 1 LIFERAFT PERFORMED WELL
FLOATS/BUOYANT APP.
          --- EFFECTIVENESS OF LIFESAVING EQUIPMENT ---
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EPIRB deployed and functioned properly

MCPD

MARINE CASUALTY POLLUTANT DETAILS SUPPLEMENT

02JUL01

CASE/ MC01002211 SUBJECT REF: BLUE MAX

D529682

CLOSE/ DELETE/

--- FEDERAL PROJECTS ---

FWPCA/ S01027 AMOUNT/ 5000 CERCLA/

AMOUNT/ 0

--- SPILL DETAILS - USE GALLONS FOR ALL LIQUID SUBSTANCES ---

TOTAL --- OUT OF WATER --- -- IN WATERWAY --- UNITS FOR STENTIAL SPILLED RECOVERED SPILLED RECOVERED NON-LIQUIDS 8000 0 0 8000 0 CODE TYPE POTENTIAL ODS L 8000 8000

NAME/ Oil: Diesel